GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 3, 2005, 19:40:54 ; Search time 88.7805 Seconds
(without alignments)
43.564 Million cell updates/sec

Title: US-09-991-809-1
Perfect score: 46
Sequence: 1 alvqqmeqlr 10

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	46	100.0	10	4	AAU28744	Aau28744 DPI trypt
2	46	100.0	10	4	AAU25332	Aau25332 Schizophr
3	46	100.0	10	4	AAU26392	Aau26392 Depressio
4	46	100.0	10	4	AAU15676	Aau15676 Schizophr
5	46	100.0	10	4	ABB52411	Abb52411 Human API
6	46	100.0	10	4	ABB52302	Abb52302 Human API
7	46	100.0	10	4	ABB52318	Abb52318 Human API
8	46	100.0	10	6	ABP57133	Abp57133 Breast ca
9	46	100.0	10	6	ABR58784	Abr58784 Alzheimer
10	46	100.0	10	8	ADH35746	Adh35746 Apolipopr
11	46	100.0	10	8	ADH35753	Adh35753 Apolipopr
12	46	100.0	10	8	ADN31699	Adn31699 Human Alz
13	46	100.0	10	8	ADO78943	Ado78943 Schizophr
14	46	100.0	12	8	ADE52383	Ade52383 Human apo
15	46	100.0	28	2	AAR82729	Aar82729 Human apo
16	46	100.0	28	2	AAW70713	Aaw70713 Apolipopr
17	46	100.0	194	2	AAR39483	Aar39483 Human apo
18	46	100.0	328	2	AAR39484	Aar39484 Human apo
19	46	100.0	333	2	AAR39488	Aar39488 Human apo
20	46	100.0	333	2	AAR39481	Aar39481 Human apo
21	46	100.0	333	2	AAR39497	Aar39497 Human apo
22	46	100.0	333	2	AAR39490	Aar39490 Human apo
23	46	100.0	337	2	AAR39485	Aar39485 Human apo
24	46	100.0	337	2	AAR39492	Aar39492 Human apo
25	46	100.0	337	2	AAR39494	Aar39494 Human apo
26	46	100.0	342	2	AAR39487	Aar39487 Human apo
27	46	100.0	342	2	AAR39491	Aar39491 Human apo
28	46	100.0	342	2	AAR39489	Aar39489 Human apo
29	46	100.0	342	2	AAR39498	Aar39498 Human apo
30	46	100.0	346	2	AAR39493	Aar39493 Human apo
31	46	100.0	363	2	AAR39478	Aar39478 Human apo
32	46	100.0	363	2	AAR39479	Aar39479 Human apo
33	46	100.0	373	2	AAR39486	Aar39486 Human apo
34	46	100.0	377	2	AAR39502	Aar39502 Human apo
35	46	100.0	377	2	AAR39443	Aar39443 Human apo
36	46	100.0	377	2	AAR45244	Aar45244 Human apo
37	46	100.0	377	2	AAR39501	Aar39501 Human apo
38	46	100.0	377	2	AAR45242	Aar45242 Human apo
39	46	100.0	377	2	AAR39480	Aar39480 Human apo
40	46	100.0	377	2	AAR39499	Aar39499 Human apo
41	46	100.0	377	2	AAR39500	Aar39500 Human apo
42	46	100.0	377	2	AAR45243	Aar45243 Human apo
43	46	100.0	396	4	AAB90664	Aab90664 Human sec
44	46	100.0	396	5	AAO15885	Aao15885 Human apo
45	46	100.0	396	5	AAU10862	Aau10862 Human apo

ALIGNMENTS

RESULT 1
AAU28744
ID AAU28744 standard; peptide; 10 AA.
XX
AC AAU28744;
XX
DT 03-JAN-2002 (first entry)
XX
DE DPI tryptic digest peptide #341.
XX
KW Human; depression associated protein isoform; tryptic digest peptide;
KW DPI; cerebrospinal fluid; CSF; BAD; bipolar affective disorder;
KW neuropsychiatric disorder; bipolar mood disorder; neuroleptic;
KW maniac-depressive illness; schizoaffective disorder.
XX
OS Homo sapiens.
XX
PN WO200162787-A1.
XX
PD 30-AUG-2001.
XX
PF 23-FEB-2001; 2001WO-GB000786.
XX
PR 24-FEB-2000; 2000GB-00004412.
PR 08-DEC-2000; 2000GB-00030050.
PR 12-DEC-2000; 2000US-0254830P.
XX
PA (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI Herath HMAC, Parekh RB, Rohlff C, Terrett JA, Tyson KL;
XX
DR WPI; 2001-570626/64.
XX
PT Novel nucleic acid encoding a protein associated with bipolar affective
PT disorder, which is used for diagnosis, prophylaxis and therapy of
PT neuropsychiatric disorders, such as bipolar affective disorder.
XX
PS Disclosure; Page 38; 153pp; English.
XX
CC The present invention relates to the identification of depression
CC associated protein isoforms (DPIs), particularly the tryptic digest
CC peptides of these proteins. Some of the DPIs (AAU28404-AAU28625)
CC described are decreased in the cerebrospinal fluid (CSF) of BAD (bipolar
CC affective disorder) subjects, whilst other DPIs (AAU28626-AAU28887) are
CC increased in BAD subjects. Also described are peptide sequences
CC identified from DPI-45 and DPI-213 and the nucleic acid sequence they are
CC encoded by. The sequences of the invention are useful for clinical
CC screening, diagnosis, prognosis, therapy and prophylaxis of

```
CC   neuropsychiatric disorders e.g. BAD (also known as bipolar mood disorder,
CC   BP), maniac-depressive illnesses, attention deficit disorders,
CC   schizoaffective disorders, and unipolar affective disorders. The present
CC   sequence represents one of the DPI tryptic digest peptides of the present
CC   invention
XX
SQ   Sequence 10 AA;

  Query Match             100.0%;  Score 46;  DB 4;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.084;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ALVQQMEQLR 10
              ||||||||||
Db          1 ALVQQMEQLR 10


RESULT 2
AAU25332
ID   AAU25332 standard; peptide; 10 AA.
XX
AC   AAU25332;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Schizophrenia-Associated Protein Isoform (SPI) peptide #561.
XX
KW   Schizophrenia-associated protein isoform; SPI; SPI-206; SPI-238; SPI-240;
KW   neuroleptic; gene therapy; cerebrospinal fluid; serum; plasma.
XX
OS   Homo sapiens.
XX
PN   WO200162785-A2.
XX
PD   30-AUG-2001.
XX
PF   23-FEB-2001; 2001WO-GB000792.
XX
PR   24-FEB-2000; 2000GB-00004415.
PR   28-DEC-2000; 2000US-00750395.
XX
PA   (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI   Herath HMAC,  Parekh RB,  Rohlff C,  Terrett JA,  Tyson KL;
XX
DR   WPI; 2001-570624/64.
XX
PT   New schizophrenia associated protein isoforms and encoding nucleic acid
PT   molecules, useful for treatment, diagnosis and prognosis of schizophrenia
PT   and screening for potential drugs for treatment and new drug targets.
XX
PS   Disclosure; Page 40; 148pp; English.
XX
CC   The sequence represents a schizophrenia-associated protein isoform (SPI).
CC   These protein isoforms, e.g. SPI-206, SPI-238 and SPI-240 are detectable
CC   in cerebrospinal fluid, serum or plasma and are useful markers of
CC   schizophrenia. The sequences can be used for treatment and diagnosis of
CC   schizophrenia, screening, prognosis, monitoring the results of therapy,
CC   identifying patients most likely to respond to a particular therapy and
CC   identification of new targets for drug treatment. SPI DNA is useful as a
CC   nucleic acid probe to detect the presence of nucleic acids or SPIs
XX
SQ   Sequence 10 AA;

  Query Match             100.0%;  Score 46;  DB 4;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.084;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ALVQQMEQLR 10
              ||||||||||
Db          1 ALVQQMEQLR 10


RESULT 3
AAU26392
ID   AAU26392 standard; peptide; 10 AA.
XX
AC   AAU26392;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Depression-Associated Protein isoform DPI-92 #3.
XX
KW   Human; Bipolar Affective Disorder; BAD; Depression-Associated feature;
KW   DF; Depression-Associated protein isoform; DPI; Cerebro-spinal fluid;
KW   CSF; antidepressant; antimanic; nootropic; tranquiliser; neuroleptic;
KW   attention deficient disorder; schizoaffective disorder;
KW   unipolar affective disorder.
XX
OS   Homo sapiens.
XX
PN   WO200163294-A2.
XX
PD   30-AUG-2001.
XX
PF   23-FEB-2001; 2001WO-GB000791.
XX
PR   24-FEB-2000; 2000GB-00004412.
PR   08-DEC-2000; 2000GB-00030050.
PR   12-DEC-2000; 2000US-0254830P.
XX
PA   (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI   Herath HMAC,  Parekh RB,  Rohlff C;
XX
DR   WPI; 2001-582081/65.
XX
PT   Preparation for diagnosing or treating bipolar affected disorder (BAD) or
PT   unipolar depression, or for screening for modulators, comprises a BAD-
PT   associated protein isoform.
XX
PS   Claim 8; Page 38; 163pp; English.
XX
CC   The invention relates to a preparation comprising an isolated Bipolar
CC   Affected Disorder (BAD)-Associated Protein Isoform (DPIs). The DPI's are
CC   used to screen, diagnose or prognose of BAD or unipolar depression,
CC   determine the stage or severity of BAD or unipolar depression, identify a
CC   subject at risk of developing BAD or unipolar depression, or monitor the
CC   effect of therapy in a subject. They are also used to screen for or
CC   identify agents that interact with a DPI. These agents, antibodies
CC   against the DPIs, and nucleic acids encoding the DPIs are used to treat
CC   or prevent BAD or unipolar depression. Diseases that can be treated are
CC   attention deficient disorder, a schizoaffective disorder, a bipolar or a
CC   unipolar affective disorder. The DPIs are used in proteomics. The
CC   proteomic approach of using DPIs for screening, diagnosis or prognosis of
CC   BAD or unipolar depression overcomes the problems of using gene
CC   expression analysis, such as not being able to obtain central nervous
CC   system (CNS) tissue from a living patient under normal circumstances. The
CC   present sequence is a DIP increased in the CSF (cerebro-spinal fluid) of
CC   subjects having BAD
XX
SQ   Sequence 10 AA;

  Query Match             100.0%;  Score 46;  DB 4;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.084;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ALVQQMEQLR 10
              ||||||||||
Db          1 ALVQQMEQLR 10


RESULT 4
AAU15676
ID   AAU15676 standard; peptide; 10 AA.
XX
```

AC AAU15676;
XX
DT 24-OCT-2001 (first entry)
XX
DE Schizophrenia-associated isoform peptide #561.
XX
KW Schizophrenia; neuroleptic; diagnostic; neuropsychiatric disorder;
KW neurological disorder; neuropathy.
XX
OS Homo sapiens.
XX
PN WO200163293-A2.
XX
PD 30-AUG-2001.
XX
PF 23-FEB-2001; 2001WO-GB000783.
XX
PR 24-FEB-2000; 2000GB-00004415.
PR 28-DEC-2000; 2000US-00750395.
XX
PA (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI Herath HMAC, Parekh RB, Rohlff C;
XX
DR WPI; 2001-502868/55.
XX
PT Diagnosing and monitoring Schizophrenia by detecting the presence of
PT Schizophrenia Associated Features and Schizophrenia Associated Protein
PT Isoforms in samples of cerebrospinal fluid.
XX
PS Claim 6; Page 40; 160pp; English.
XX
CC The invention relates to methods and compositions for screening,
CC diagnosis and prognosis of Schizophrenia. The method involves detecting
CC the presence of Schizophrenia (SCH) Associated Features (SFs) and SCH
CC Associated Protein Isoforms (SPIs) in samples, e.g. by electrophoresis,
CC immunoassay or hybridisation assay, for diagnosing and monitoring SCH,
CC studying the effectiveness of treatments and for identifying potential
CC therapeutic agents. The method is used for (1) screening or diagnosis of
CC SCH and the relative abundance of at least 1 chosen feature correlates
CC with the presence or absence of SCH; and (2) monitoring the effect of
CC therapy administered to a subject with SCH and the relative abundance of
CC at least 1 chosen feature which correlates with the severity of SCH. The
CC expression and activity of the SFs, SPIs and related molecules (e.g.
CC secondary messengers) are studied to diagnose SCH, monitor the progress
CC of the disorder and the effectiveness of treatment and as targets to
CC identify and produce potential therapeutic agents for the treatment of
CC SCH. The paucity of detectable neuralgic defects distinguishes
CC neuropsychiatric disorders such as SCH from neurological disorders, where
CC manifestations of anatomical and biochemical changes have been identified
CC in many cases. Consequently the identification and characterisation of
CC cellular and/or molecular causative defects and neuropathies are
CC necessary for improved treatment of neuropsychiatric disorders. AAU15114-
CC AAU15762 represent the amino acid sequences of schizophrenia-associated
CC isoforms used in the method of the invention
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 5
ABB52411
ID ABB52411 standard; peptide; 10 AA.
XX
AC ABB52411;
XX
DT 08-FEB-2002 (first entry)
XX
DE Human API-161 tryptic digest peptide #4.
XX
KW Human; neuroprotective; nootropic; gene therapy; vaccine;
KW Alzheimer's disease; Alzheimer's Disease-Associated Feature; AF;
KW Alzheimer's Disease-Associated Protein Isoform; API; tryptic digest;
KW Expression Reference Protein Isoform; ERPI; proteolysis.
XX
OS Homo sapiens.
XX
PN WO200175454-A2.
XX
PD 11-OCT-2001.
XX
PF 03-APR-2001; 2001WO-US010908.
XX
PR 03-APR-2000; 2000US-0194504P.
PR 28-NOV-2000; 2000US-0253647P.
XX
PA (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
PA (PFIZ) PFIZER INC.
XX
PI Durham KL, Friedman DL, Herath HMAC, Kimmel LH, Parekh RB;
PI Potter DM, Rohlff C, Silber BM, Stiger TR, Sunderland PT;
PI Townsend RR, White F, Williams SA;
XX
DR WPI; 2001-639384/73.
XX
PT Screening for Alzheimer's disease in a mammal, by making two-dimensional
PT array of a feature whose relative abundance correlates with disease, and
PT comparing with abundance of the feature in samples of healthy persons.
XX
PS Example; Page 35; 162pp; English.
XX
CC The invention relates to methods for the screening, diagnosis and
CC prognosis of Alzheimer's disease. The methods involve the detection of
CC Alzheimer's Disease-Associated Features (AFs) and Alzheimer's Disease-
CC Associated Protein Isoforms (APIs) in cerebrospinal fluid, serum or
CC plasma. The abundance of the AFs and APIs is then normalised to an
CC Expression Reference Protein Isoform (ERPI) in order to determine whether
CC a patient is suffering from, or has a predisposition to, Alzheimer's
CC Disease. The relative abundance of the AFs and APIs correlates with the
CC severity of Alzheimer's Disease. The present sequence is a peptide
CC produced from an API by proteolysis
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 6
ABB52302
ID ABB52302 standard; peptide; 10 AA.
XX
AC ABB52302;
XX
DT 08-FEB-2002 (first entry)
XX
DE Human API-40 tryptic digest peptide #2.
XX
KW Human; neuroprotective; nootropic; gene therapy; vaccine;
KW Alzheimer's disease; Alzheimer's Disease-Associated Feature; AF;
KW Alzheimer's Disease-Associated Protein Isoform; API; tryptic digest;
KW Expression Reference Protein Isoform; ERPI; proteolysis.
XX
OS Homo sapiens.

XX
PN WO200175454-A2.
XX
PD 11-OCT-2001.
XX
PF 03-APR-2001; 2001WO-US010908.
XX
PR 03-APR-2000; 2000US-0194504P.
PR 28-NOV-2000; 2000US-0253647P.
XX
PA (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
PA (PFIZ) PFIZER INC.
XX
PI Durham KL, Friedman DL, Herath HMAC, Kimmel LH, Parekh RB;
PI Potter DM, Rohlff C, Silber BM, Stiger TR, Sunderland PT;
PI Townsend RR, White F, Williams SA;
XX
DR WPI; 2001-639384/73.
XX
PT Screening for Alzheimer's disease in a mammal, by making two-dimensional
PT array of a feature whose relative abundance correlates with disease, and
PT comparing with abundance of the feature in samples of healthy persons.
XX
PS Example; Page 33; 162pp; English.
XX
CC The invention relates to methods for the screening, diagnosis and
CC prognosis of Alzheimer's disease. The methods involve the detection of
CC Alzheimer's Disease-Associated Features (AFs) and Alzheimer's Disease-
CC Associated Protein Isoforms (APIs) in cerebrospinal fluid, serum or
CC plasma. The abundance of the AFs and APIs is then normalised to an
CC Expression Reference Protein Isoform (ERPI) in order to determine whether
CC a patient is suffering from, or has a predisposition to, Alzheimer's
CC Disease. The relative abundance of the AFs and APIs correlates with the
CC severity of Alzheimer's Disease. The present sequence is a peptide
CC produced from an API by proteolysis
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 7
ABB52318
ID ABB52318 standard; peptide; 10 AA.
XX
AC ABB52318;
XX
DT 08-FEB-2002 (first entry)
XX
DE Human API-43 tryptic digest peptide #3.
XX
KW Human; neuroprotective; nootropic; gene therapy; vaccine;
KW Alzheimer's disease; Alzheimer's Disease-Associated Feature; AF;
KW Alzheimer's Disease-Associated Protein Isoform; API; tryptic digest;
KW Expression Reference Protein Isoform; ERPI; proteolysis.
XX
OS Homo sapiens.
XX
PN WO200175454-A2.
XX
PD 11-OCT-2001.
XX
PF 03-APR-2001; 2001WO-US010908.
XX
PR 03-APR-2000; 2000US-0194504P.
PR 28-NOV-2000; 2000US-0253647P.
XX
PA (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
PA (PFIZ) PFIZER INC.
XX
PI Durham KL, Friedman DL, Herath HMAC, Kimmel LH, Parekh RB;
PI Potter DM, Rohlff C, Silber BM, Stiger TR, Sunderland PT;
PI Townsend RR, White F, Williams SA;
XX
DR WPI; 2001-639384/73.
XX
PT Screening for Alzheimer's disease in a mammal, by making two-dimensional
PT array of a feature whose relative abundance correlates with disease, and
PT comparing with abundance of the feature in samples of healthy persons.
XX
PS Example; Page 33; 162pp; English.
XX
CC The invention relates to methods for the screening, diagnosis and
CC prognosis of Alzheimer's disease. The methods involve the detection of
CC Alzheimer's Disease-Associated Features (AFs) and Alzheimer's Disease-
CC Associated Protein Isoforms (APIs) in cerebrospinal fluid, serum or
CC plasma. The abundance of the AFs and APIs is then normalised to an
CC Expression Reference Protein Isoform (ERPI) in order to determine whether
CC a patient is suffering from, or has a predisposition to, Alzheimer's
CC Disease. The relative abundance of the AFs and APIs correlates with the
CC severity of Alzheimer's Disease. The present sequence is a peptide
CC produced from an API by proteolysis
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 8
ABP57133
ID ABP57133 standard; peptide; 10 AA.
XX
AC ABP57133;
XX
DT 16-APR-2003 (first entry)
XX
DE Breast cancer associated tryptic digest peptide SEQ ID NO:12.
XX
KW Breast cancer associated feature; BF; BPI; breast cancer; diagnosis;
KW breast cancer associated protein isoform; cytostatic; gene therapy.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200288750-A2.
XX
PD 07-NOV-2002.
XX
PF 02-MAY-2002; 2002WO-GB002022.
XX
PR 02-MAY-2001; 2001GB-00010790.
PR 27-JUL-2001; 2001GB-00018385.
PR 14-AUG-2001; 2001GB-00019791.
PR 16-AUG-2001; 2001GB-00020045.
PR 22-NOV-2001; 2001GB-00028062.
XX
PA (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI Herath HMAC;
XX
DR WPI; 2003-175048/17.
XX
PT Screening, diagnosing or determining the stage or severity of breast
PT cancer, comprises analyzing and quantitatively detecting Breast Cancer-

PT Associated Features or Breast Cancer-Associated Protein Isoforms in a
PT biological sample.
XX
PS Disclosure; Page 17; 88pp; English.
XX
CC The present invention describes a method for screening, diagnosing or
CC determining the stage or severity of breast cancer, identifying a subject
CC at risk of developing breast cancer, or monitoring the effect of therapy
CC administered to a subject with breast cancer, by generating a two-
CC dimensional array of features comprising breast cancer-associated
CC features (BFs), or quantitatively detecting breast cancer-associated
CC protein isoforms (BPIs). Also described: (1) an antibody capable of
CC immunospecifically binding to one of the BPIs; (2) a pharmaceutical
CC compositions comprising: (a) a BPI, or a nucleic acid encoding a BPI, and
CC a carrier; or (b) the antibody of (1), or a fragment or derivative of the
CC antibody, and a carrier; (3) screening for agents that interact with one
CC or more BPIs, BPI fragments, polypeptides related to BPIs, or BPI-fusion
CC proteins; (4) screening for or identifying agents that modulate the
CC expression or activity of one or more BPIs, a BPI fragment, a BPI-related
CC polypeptide, or BPI-fusion proteins; and (5) treating or preventing
CC breast cancer. BPIs have cytostatic activity and can be used in gene
CC therapy. Methods and kits comprising antibodies or the BPIs from the
CC present invention can be used for screening, diagnosing or determining
CC the stage or severity of breast cancer, identifying a subject at risk of
CC developing breast cancer, or monitoring the effect of therapy
CC administered to a subject with breast cancer. The antibodies, BPIs,
CC nucleic acids encoding the BPIs, or an agent that modulates the activity
CC of one or more BPIs are useful for treating or preventing breast cancer.
CC ABP57104 to ABP57250 represent breast cancer associated tryptic digest
CC peptides, which are used in the exemplification of the present invention
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 9
ABR58784
ID ABR58784 standard; peptide; 10 AA.
XX
AC ABR58784;
XX
DT 11-JUL-2003 (first entry)
XX
DE Alzheimer's Disease-associated protein isoform, API-325, SEQ ID 25.
XX
KW Nootropic; Neuroprotective; Alzheimer's disease; API; human;
KW Alzheimer's Disease-associated protein isoform.
XX
OS Homo sapiens.
XX
PN WO2003028543-A2.
XX
PD 10-APR-2003.
XX
PF 03-OCT-2002; 2002WO-US031642.
XX
PR 03-OCT-2001; 2001US-0326708P.
XX
PA (PFIZ) PFIZER PROD INC.
PA (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI Durham LK, Friedman DL, Herath HMAC, Kimmel LH, Parekh RB;
PI Potter DM, Rohlff C, Silber BM, Snyder PJ, Soares HD, Stiger TR;
PI Sunderland PT, Townsend RR, White WF, Williams SA;
XX
DR WPI; 2003-371957/35.
XX
PT Screening or diagnosing of Alzheimer's disease (AD) determine the stage
PT or severity of AD in a subject, comprises analyzing a test sample of body
PT fluid from the subject by 2-dimensional electrophoresis.
XX
PS Claim 2; Page 33; 179pp; English.
XX
CC The present invention relates to methods for screening or diagnosing
CC Alzheimer's disease (AD) to determine the stage or severity of AD in a
CC subject, to identify subject at risk of developing AD, or to monitor the
CC effect of therapy administered. The methods comprise analysing a test
CC sample of body fluid by 2-dimensional electrophoresis to generate a 2-
CC dimensional array of AD-associated features (AFs). The method
CC alternatively comprises quantitatively detecting in a sample of body
CC fluid from the subject, one or more AD-associated protein isoforms (APIs;
CC ABR58710-ABR59184)
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 6; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 10
ADH35746
ID ADH35746 standard; peptide; 10 AA.
XX
AC ADH35746;
XX
DT 11-MAR-2004 (first entry)
XX
DE Apolipoprotein A-IV peptide.
XX
KW screening; differential diagnosis; neurological disorder;
KW Alzheimer's disease; frontotemporal dementia; dementia with Lewy bodies;
KW vascular dementia; depression; apolipoprotein E; Apo E;
KW alpha-1-antitrypsin; alpha-1-beta glycoprotein; antithrombin III;
KW Apo A-1; Apo A-IV; Apo J; gelsolin; haptoglobin;
KW hemopexin Ig alpha-1 chain C region; kininogen;
KW prostaglandin-H2 D-isomerase; transthyretin; vitamin D-binding protein;
KW Zn-alpha-2-glycoprotein.
XX
OS Synthetic.
XX
PN WO2004001421-A2.
XX
PD 31-DEC-2003.
XX
PF 18-JUN-2003; 2003WO-EP006469.
XX
PR 21-JUN-2002; 2002EP-00447121.
PR 17-JUL-2002; 2002US-0396438P.
XX
PA (INNO-) INNOGENETICS NV.
XX
PI Kostanjevecki V, Vanmechelen E, De Brabandere V;
XX
DR WPI; 2004-071781/07.
XX
PT Screening, diagnosing and/or prognosing a mammal with neurological
PT disorders comprises detecting, in the mammal the level of at least one
PT proteins, e.g. Apo E, alpha-1-antitrypsin, alpha-1-beta glycoprotein,
PT antithrombin III, or Apo A-1.
XX
PS Example 2; Page 73; 106pp; English.
XX
CC The present invention describes a method for screening, (differential)
CC diagnosing and/or prognosing a mammal with neurological disorders, and

CC identifying a mammal at risk of or monitoring the effect of therapy
CC administered to a mammal having Alzheimer's disease (AD), frontotemporal
CC dementia (FTD), dementia with Lewy bodies (DLB), vascular dementia (VAD),
CC and/or depression. The method comprises: (a) detecting, in a mammal the
CC level of at least one of apolipoprotein (Apo) E, alpha-1-antitrypsin,
CC alpha-1-beta glycoprotein, antithrombin III, Apo A-1, Apo A-IV, Apo J,
CC gelsolin, haptoglobin, hemopexin Ig alpha-1 chain C region (heavy),
CC kininogen, prostaglandin-H2 D-isomerase, transthyretin, vitamin D-binding
CC protein, Zn-alpha-2-glycoprotein or its isoform; (b) comparing the level
CC of the at least one protein or protein isoform detected with a range of
CC levels of mammals suffering from AD, FTD, DLB, VAD or depression and with
CC range of levels of control mammals; and (c) concluding from the
CC comparison whether the mammal is suffering from AD, FTD, DLB, VAD or
CC depression. Also described: (1) a composition comprising at least one of
CC the following protein isoforms associated with AD, FTD, DLB, VAD or
CC depression; (2) an antibody capable of specifically recognising one of
CC the protein isoforms of (1); (3) a kit comprising the antibody of (2);
CC and (4) screening for agents that interact with and/or modulate the
CC expression or activity of a protein or protein isoform. The method is
CC useful in screening, diagnosing and/or prognosing a mammal with
CC neurological disorders. The antibody is useful in preparing a kit for
CC screening, (differential) diagnosing or prognosing a mammal with,
CC identifying a mammal at risk of or monitoring the effect of therapy
CC administered to a mammal having AD, FTD, DLB, VAD and/or depression. The
CC present sequence represents a peptide used in the identification of the
CC protein spots that were altered between the studied groups, which is used
CC in the exemplification of the present invention.
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 8; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 11
ADH35753
ID ADH35753 standard; peptide; 10 AA.
XX
AC ADH35753;
XX
DT 11-MAR-2004 (first entry)
XX
DE Apolipoprotein A-IV peptide.
XX
KW screening; differential diagnosis; neurological disorder;
KW Alzheimer's disease; frontotemporal dementia; dementia with Lewy bodies;
KW vascular dementia; depression; apolipoprotein E; Apo E;
KW alpha-1-antitrypsin; alpha-1-beta glycoprotein; antithrombin III;
KW Apo A-1; Apo A-IV; Apo J; gelsolin; haptoglobin;
KW hemopexin Ig alpha-1 chain C region; kininogen;
KW prostaglandin-H2 D-isomerase; transthyretin; vitamin D-binding protein;
KW Zn-alpha-2-glycoprotein.
XX
OS Synthetic.
XX
PN WO2004001421-A2.
XX
PD 31-DEC-2003.
XX
PF 18-JUN-2003; 2003WO-EP006469.
XX
PR 21-JUN-2002; 2002EP-00447121.
PR 17-JUL-2002; 2002US-0396438P.
XX
PA (INNO-) INNOGENETICS NV.
XX
PI Kostanjevecki V, Vanmechelen E, De Brabandere V;
XX
DR WPI; 2004-071781/07.
XX
PT Screening, diagnosing and/or prognosing a mammal with neurological
PT disorders comprises detecting, in the mammal the level of at least one
PT proteins, e.g. Apo E, alpha-1-antitrypsin, alpha-1-beta glycoprotein,
PT antithrombin III, or Apo A-1.
XX
PS Example 2; Page 73; 106pp; English.
XX
CC The present invention describes a method for screening, (differential)
CC diagnosing and/or prognosing a mammal with neurological disorders, and
CC identifying a mammal at risk of or monitoring the effect of therapy
CC administered to a mammal having Alzheimer's disease (AD), frontotemporal
CC dementia (FTD), dementia with Lewy bodies (DLB), vascular dementia (VAD),
CC and/or depression. The method comprises: (a) detecting, in a mammal the
CC level of at least one of apolipoprotein (Apo) E, alpha-1-antitrypsin,
CC alpha-1-beta glycoprotein, antithrombin III, Apo A-1, Apo A-IV, Apo J,
CC gelsolin, haptoglobin, hemopexin Ig alpha-1 chain C region (heavy),
CC kininogen, prostaglandin-H2 D-isomerase, transthyretin, vitamin D-binding
CC protein, Zn-alpha-2-glycoprotein or its isoform; (b) comparing the level
CC of the at least one protein or protein isoform detected with a range of
CC levels of mammals suffering from AD, FTD, DLB, VAD or depression and with
CC range of levels of control mammals; and (c) concluding from the
CC comparison whether the mammal is suffering from AD, FTD, DLB, VAD or
CC depression. Also described: (1) a composition comprising at least one of
CC the following protein isoforms associated with AD, FTD, DLB, VAD or
CC depression; (2) an antibody capable of specifically recognising one of
CC the protein isoforms of (1); (3) a kit comprising the antibody of (2);
CC and (4) screening for agents that interact with and/or modulate the
CC expression or activity of a protein or protein isoform. The method is
CC useful in screening, diagnosing and/or prognosing a mammal with
CC neurological disorders. The antibody is useful in preparing a kit for
CC screening, (differential) diagnosing or prognosing a mammal with,
CC identifying a mammal at risk of or monitoring the effect of therapy
CC administered to a mammal having AD, FTD, DLB, VAD and/or depression. The
CC present sequence represents a peptide used in the identification of the
CC protein spots that were altered between the studied groups, which is used
CC in the exemplification of the present invention.
XX
SQ Sequence 10 AA;

Query Match 100.0%; Score 46; DB 8; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.084;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

RESULT 12
ADN31699
ID ADN31699 standard; peptide; 10 AA.
XX
AC ADN31699;
XX
DT 01-JUL-2004 (first entry)
XX
DE Human Alzheimer's disease-API tryptic digest peptide - SEQ ID 25.
XX
KW Alzheimer's disease; nootropic; neuroprotective; cerebrospinal fluid;
KW CSF; Alzheimer's disease-associated protein isoform; API; tryptic digest;
KW human.
XX
OS Homo sapiens.
XX
PN EP1408333-A2.
XX
PD 14-APR-2004.
XX
PF 03-OCT-2002; 2002EP-00256893.
XX
PR 03-OCT-2002; 2002US-0326708P.

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XX
PA   (PFIZ ) PFIZER PROD INC.
PA   (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI   Durham LK,  Friedman DL,  Herath HMAC,  Kimmel LH,  Parekh RB;
PI   Potter DM,  Rohlff C,  Silber BM,  Snyder PJ,  Soares HD,  Stiger TR;
PI   Sunderland PT,  Townsend RR,  White WF,  Williams SA;
XX
DR   WPI; 2004-318939/30.
XX
PT   Screening or diagnosis of Alzheimer's disease (AD) in subject,
PT   determining stage or severity of AD, identifying subject at risk of
PT   developing AD, or monitoring effect of therapy, by detecting Alzheimer's
PT   disease-Associated Features.
XX
PS   Example; SEQ ID NO 25; 208pp; English.
XX
CC   The invention relates to a novel method for screening or diagnosis of
CC   Alzheimer's disease (AD) in a subject, determining the stage or severity
CC   of AD, identifying a subject at risk of developing AD or monitoring the
CC   effect of therapy administered to a subject having AD, by analysing body
CC   fluid to generate a two-dimensional array of Alzheimer's disease-
CC   associated features (AFs) such as AF-200, AF-201, AF-202, AF-203, AF-204,
CC   AF-205, etc., and comparing the abundance of AFs with a control. The
CC   method of the invention has nootropic and neuroprotective applications
CC   and may be useful for screening or diagnosis of Alzheimer's disease (AD)
CC   in a subject, determining the stage or severity of AD in a subject,
CC   identifying a subject at risk of developing AD or monitoring the effect
CC   of therapy administered to a subject having AD. The body fluid is
CC   cerebrospinal fluid (CSF). The current sequence is that of a human
CC   Alzheimer's disease-associated protein isoform (API) tryptic digest
CC   peptide of the invention.
XX
SQ   Sequence 10 AA;

  Query Match             100.0%;  Score 46;  DB 8;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.084;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ALVQQMEQLR 10
              ||||||||||
Db          1 ALVQQMEQLR 10


RESULT 13
ADO78943
ID   ADO78943 standard; peptide; 10 AA.
XX
AC   ADO78943;
XX
DT   26-AUG-2004  (first entry)
XX
DE   Schizophrenia-Associated Protein Isoform (SPI) seqid 561.
XX
KW   neuroleptic; Schizophrenia; immunospecific binding;
KW   Schizophrenia-Associated Protein Isoform; SPI; schizophrenia screening;
KW   schizophrenia diagnosing; schizophrenia prognosing;
KW   Schizophrenia treatment; drug development; cerebrospinal fluid; human.
XX
OS   Homo sapiens.
XX
PN   US2004110938-A1.
XX
PD   10-JUN-2004.
XX
PF   23-FEB-2001; 2001US-00791377.
XX
PR   24-FEB-2000; 2000GB-00044156.
PR   28-DEC-2000; 2000US-00750395.
XX
PA   (PARE/) PAREKH R B.
PA   (HERA/) CHANDRASIRI HERATH H M A.
PA   (ROHL/) ROHLFF C.
PA   (TERR/) TERRETT J A.
PA   (TYSO/) TYSON K L.
XX
PI   Parekh RB,  Chandrasiri Herath HMA,  Rohlff C,  Terrett JA,  Tyson KL;
XX
DR   WPI; 2004-440403/41.
XX
PT   New isolated nucleic acid molecule, useful for diagnosing Schizophrenia,
PT   for monitoring the effectiveness of Schizophrenia treatment or for
PT   screening agents for treating Schizophrenia.
XX
PS   Disclosure; SEQ ID NO 561; 170pp; English.
XX
CC   The invention describes an isolated nucleic acid molecule (I) that
CC   hybridises to two short nucleic acid sequences and the 1515 amino acid
CC   sequence fully defined in the specification. Also described are: a
CC   preparation comprising an isolated peptide coded for by the nucleic acid
CC   molecule above, or comprising an isolated human protein comprising one or
CC   more of the following sequences: Glu-Leu-Asp-Val-Leu-Gln-Gly-Arg, and Gly
CC   -Ile-Leu-Ile-Leu-Gly-Gln-Glu-Gln-Asp-Thr-Leu-Gly-Gly-Arg; methods for
CC   diagnosing Schizophrenia; antibodies capable of immunospecific binding to
CC   a Schizophrenia-Associated Protein Isoform (SPI); methods of treating
CC   Schizophrenia; and methods of screening for agents that modulate a
CC   characteristic (e.g., expression or binding activity) of an SPI, an SPI
CC   analogue, or an SPI-related polypeptide. The nucleic acid molecule and
CC   encoded proteins, as well as the methods and compositions are useful for
CC   screening, diagnosing, and prognosing Schizophrenia, for monitoring the
CC   effectiveness of Schizophrenia treatment, for identifying patients most
CC   likely to respond to a particular therapeutic treatment and for
CC   developing drug. They are also useful for screening modulators of
CC   Schizophrenia-Associated Protein Isoform useful for treating
CC   Schizophrenia. This is the amino acid sequence a schizophrenia-associated
CC   protein isoform increased in the cerebrospinal fluid of schizoprenia
CC   patients.
XX
SQ   Sequence 10 AA;

  Query Match             100.0%;  Score 46;  DB 8;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.084;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ALVQQMEQLR 10
              ||||||||||
Db          1 ALVQQMEQLR 10


RESULT 14
ADE52383
ID   ADE52383 standard; peptide; 12 AA.
XX
AC   ADE52383;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human apolipoprotein biopolymer marker #1.
XX
KW   human; apolipoprotein biopolymer marker; disease state regulation;
KW   therapeutic avenue.
XX
OS   Homo sapiens.
XX
PN   US2003100014-A1.
XX
PD   29-MAY-2003.
XX
PF   23-NOV-2001; 2001US-00991809.
XX
PR   23-NOV-2001; 2001US-00991809.
XX
PA   (JACK/) JACKOWSKI G.
PA   (MARS/) MARSHALL J.
XX
PI   Jackowski G,  Marshall J;
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XX
DR WPI; 2004-031198/03.
XX
PT New apolipoprotein biopolymer marker useful for indicating at least one
PT particular disease state, such as, Type II diabetes, using e.g. mass
PT spectrometric analysis.
XX
PS Claim 1; Page 11; 17pp; English.
XX
CC The invention relates to an apolipoprotein biopolymer marker or its
CC analyte useful in indicating a particular disease state. The
CC apolipoprotein biopolymer marker is useful for regulating a disease state
CC by controlling the presence or absence of apolipoprotein biopolymer
CC marker. The apolipoprotein biopolymer marker or a diagnostic kit is
CC useful for identifying therapeutic avenues related to a disease state,
CC which involves conducting an analysis by using the diagnostic kit and
CC interacting with apolipoprotein biopolymer marker. The present sequence
CC represents the amino acid sequence of a human apolipoprotein biopolymer
CC marker.
XX
SQ Sequence 12 AA;

Query Match 100.0%; Score 46; DB 8; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.1;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 2 ALVQQMEQLR 11

RESULT 15
AAR82729
ID AAR82729 standard; peptide; 28 AA.
XX
AC AAR82729;
XX
DT 03-MAY-1996 (first entry)
XX
DE Human apolipoprotein A-IV fragment.
XX
KW apolipoprotein; apo A-IV; appetite suppressant; food intake.
XX
OS Synthetic.
XX
PN WO9525749-A2.
XX
PD 28-SEP-1995.
XX
PF 22-MAR-1995; 95WO-US003660.
XX
PR 22-MAR-1994; 94US-00216537.
XX
PA (RESE) RESEARCH CORP TECHNOLOGIES INC.
XX
PI Tso P;
XX
DR WPI; 1995-344590/44.
XX
PT Method to suppress appetite or inhibit food intake - by admin of the 35 N
PT -terminal amino acids of mature mammalian apo A-IV protein, or analogues,
PT homologues or fragments.
XX
PS Claim 8; Page 11; 100pp; English.
XX
CC Novel eating suppressant peptides are provided which are derived from
CC apolipoprotein A-IV and have been made by solid phase peptide synthesis.
CC The peptides comprise at least a fragment of a 14 amino acid sequence
CC derived from the amino terminal portion of mature apo A-IV. Smaller
CC fragments (e.g. 3-13 amino acids) and larger peptides (e.g. 15-30 amino
CC acids) can also be used, as can homologues of these sequences. Because of
CC their small size, the peptides can pass the blood brain barrier if
CC necessary. They are not immunogenic, and they provide a specific
CC satiation signal. The present sequence, which is corresponds
CC substantially to residues 316-346 of human apo A-IV precursor, is a
CC specifically claimed example of the new peptides
XX
SQ Sequence 28 AA;

Query Match 100.0%; Score 46; DB 2; Length 28;
Best Local Similarity 100.0%; Pred. No. 0.24;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ALVQQMEQLR 10
||||||||||
Db 1 ALVQQMEQLR 10

Search completed: September 3, 2005, 19:58:52
Job time : 89.7805 secs